

## PATENT COOPERATION TREATY

## PCT

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P 24215 PC</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/NO2003/000410</b>	International filing date (day/month/year) <b>09.12.2003</b>	Priority date (day/month/year) <b>10.12.2002</b>
International Patent Classification (IPC) or national classification and IPC <b>E21B 23/06</b>		
Applicant <b>Freyer, Rune</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☒ (sent to the applicant and to the International Bureau) a total of 1 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:
- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

Date of submission of the demand <b>24.05.2004</b>	Date of completion of this report <b>22.02.2005</b>
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer <b>Christer Bäcknert / MRO</b> Telephone No. +46 8 782 25 00

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO2003/000410

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1 - 7 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* 1 \_\_\_\_\_ received by this Authority on 03.11.2004
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages 1 - 4 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO2003/000410

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1-3</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-3</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-3</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The International Search Report cites the following relevant documents

D1: US6173788 B1

D2: US3899631 A1

This invention relates to a cable duct in a swelling packer, adapted to seal an annulus between a production tubing and a casing, or between a production tubing and the well formation in a well. It is intended to solve problems relating to cables being poorly protected during insertion of the production tubing in the well and relating to insufficient expansion of the packers.

According to the amended claims, the swellable packer is provided with a slit, the slit passing between the outside surface of the packer and the through-going opening constituting the duct for the cable.

D1 discloses a mechanical compressible packer provided with an outer longitudinal slot in which a cable may be arranged. This prior art packer has the problems the present invention is intended to solve.

D2 discloses another mechanical compressible packer provided with through-going cable ducts in the packer between the outer and inner surfaces of the packer.

The cited documents represent the general state of the art. The invention defined in claims 1-3 is not disclosed by any of these documents.

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed cable duct device in a swellable packer. Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in amended claims 1-3 is novel and is considered to involve an inventive step.

The invention is industrially applicable.

C l a i m s

1. A cable duct device in a swellable packer (1) of the kind in which the packer (1) is adapted to be able of sealing an annulus (3) and where the swellable packer (1) is provided with at least one opening (6) there-  
5 through adapted to constitute a duct for a cable or pipe (12), c h a r a c t e r i z e d i n that the swellable packer (1) is provided with a slit (10), the slit (10) passing between the outside surface (8) of the packer  
10 (1) and the through-going opening (6).
2. Device according to claim 1, c h a r a c t e r i z e d i n t h a t the through-going opening (6) encloses the cable (12) both prior to and after the swelling has occurred in the swelling packer (1).
- 15 3 . Device according to claim 1, c h a r a c t e r i z e d i n t h a t a cable or pipe (12) is situated on the inside of the packer (1) within a longitudinal recess in the outside of the production tubing (2).